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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,832	02/20/2004	Daniel Stewart Stoops	LUCW-0011	7494
48671 7590 12/22/2008 FLETCHER YODER (LUCENT) P.O. BOX 692289 HOUSTON, TX 77069				
EXAMINER				
ALBERTALLI, BRIAN LOUIS				
ART UNIT		PAPER NUMBER		
2626				
MAIL DATE		DELIVERY MODE		
12/22/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,832

Applicant(s)

STOOPS ET AL.

Examiner

BRIAN L. ALBERTALLI

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 October 2008 has been entered.

Response to Arguments

1. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-15 are directed to a signal processor and a communications system. The specification states that a signal processing unit may be implemented by software, hardware, or a combination of both (see page 18 of the specification). Thus, a signal processor includes embodiments comprising only software (computer programs). Such claimed computer programs do not define any

structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized. Similarly, claim 5 defines the communications system as comprising a telephony server and a browser module. But the specification states that the telephony server and browser module may include only software. Therefore, claims 1-15 include non-statutory subject matter.

4. Claims 16-18 and 25-27 do not fall within one of the four statutory categories of invention. While the claim(s) recite a series of steps or acts to be performed, a statutory "process" under 35 USC 101 must (1) be tied to another statutory category (such as a manufacture or a machine), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. The instant claim(s) neither transform underlying subject matter nor positively recite structure associated with another statutory category, and therefore do not define a statutory process.

In this case, claims 16-18 do not recite any statutory physical structure that could be considered to tie the method to another statutory category.

Claims 25-27 are directed to a method for manufacturing a telephony system comprising the single step of providing a signal processing device. As described above, a signal processing device may include only software. Thus, the act of providing the signal processing device includes the act of providing only software. Claims 25-27, therefore, are not tied to another statutory category.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-5, 7, 8, and 11-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Neuberger et al. (U.S. Patent Application Publication 2004/0153322).

In regard to claim 1, Neuberger et al. disclose a signal processor configured to receive a token selected based upon a composite grammar (Fig. 2, remote voice application 40 receives a prompt from a user based on a grammar, paragraph 0025; the grammar comprising a composite grammar of acceptable responses, paragraph 0012), the composite grammar including multiple levels of a menu hierarchy (see Fig. 3, the composite grammar includes recognition of all words in the hierarchy, paragraph 0026), wherein the token corresponds to an entry point for one of a plurality of applications (one or more applications, paragraph 0025; are accessed at an entry point such as entry point 154 of Fig. 3, paragraph 0029), and configured to access the respective application at the entry point by navigating through the levels of a menu hierarchy upon receipt of the token (see Fig. 3, by stating, e.g. "greetings, record", the menu hierarchy of Fig. 3 is navigated to record a greeting at level 160, paragraph 0029).

In regard to claim 3, Neuberger et al. disclose the signal processor is configured to receive a responsive data file from a level of the respective application corresponding to the entry point and configured to transmit the data file to a telephony server (see Fig. 2, a response from the remote voice application 40 is transmitted to IVR 12 for TTS 30 to generate a response for the user, paragraphs 0024, 0025, and 0029).

In regard to claim 4, Neuberger et al. disclose a telephony server (IVR 12) configured to receive a modulated signal correlative to an audio command (IVR 12 receives speech from PSTN 16 and recognizes the speech with recognizer 26, paragraph 0024), to analyze the modulated signal to identify a constituent of a root grammar, to select the token corresponding to the constituent, and to transmit the token to the signal processor (user interface 42 uses the composite grammar to identify a constituent of a root grammar, e.g. "greetings", or "settings", see Fig. 3, and paragraphs 0025 and 0029).

In regard to claim 5, Neuberger et al. disclose a communications system (Fig. 2), comprising:

a telephony server (IVR 12) configured to receive a modulated signal correlative to an audio command (IVR 12 receives speech from PSTN 16, paragraph 0021), to analyze the modulated signal to identify a constituent of a composite grammar (recognizes the speech with recognizer 26, paragraph 0024; the IVR using the composite grammar to interpret prompts from a user, paragraph 0025), the composite

grammar comprising inputs corresponding to each of a plurality of applications (one or more applications, paragraph 0025), and to select a token corresponding to the constituent (user interface 42 uses the composite grammar to identify a constituent of the composite grammar, see Fig. 3, and paragraphs 0025 and 0029); and

a browser module configured to acquire the token and to access an entry point for one of a plurality of applications based upon the token by navigating levels of a menu hierarchy (see Fig. 3, by stating, e.g. "greetings, record", the menu hierarchy of Fig. 3 is navigated to record a greeting at level 160, paragraph 0029)

In regard to claim 7, Neuberger et al. disclose the browser module is configured to receive a responsive data file from a level of the respective application corresponding to the entry point and configured to transmit the data file to the telephony server (see Fig. 2, a response from the remote voice application 40 is transmitted to IVR 12 for TTS 30 to generate a response for the user, paragraphs 0024, 0025, and 0029).

In regard to claim 8, Neuberger et al. disclose the responsive data file comprises at least one of an audio file, a text file, a video file, and a multimedia file (the response is supplied to a text-to-speech converter, so the response must inherently include at least a text file, paragraphs 0024, 0025, and 0029).

In regard to claim 11, Neuberger et al. disclose a public switched telephone network configured to transmit the modulated signal to the telephony server (Fig. 2, PSTN 16, paragraph 0021).

In regard to claim 12, Neuberger et al. disclose the composite grammar comprises a VoiceXML grammar (VoiceXML form level grammars, paragraph 0040).

In regard to claim 13, Neuberger et al. disclose the root grammar comprises at least two of a voice mail application grammar (Fig. 3, messages 112), a help application grammar, a conference call application grammar, a news application grammar, a weather application grammar, a financial application grammar, a scheduling application grammar, a mapping application grammar, and a database application grammar (settings 114, see paragraph 0026).

In regard to claim 14, Neuberger et al. disclose a unified interface server configured to generate at least one root grammar included within the composite grammar (a grammar analyzer in user interface 42 creates a multi-level grammar, including main menu choices such as messages, settings, and greetings, paragraphs 0025 and 0026 and Fig. 3).

In regard to claim 15, Neuberger et al. disclose the unified interface server is further configured to generate one or more main menu applications associated with the

plurality of applications (a grammar analyzer in user interface 42 creates a multi-level grammar, including main menu choices such as messages, settings, and greetings, paragraphs 0025 and 0026 and Fig. 3).

In regard to claim 16, Neuberger et al. disclose a method for accessing an application, the method comprising the acts of:

processing a signal to identify an audio code as a constituent of a composite grammar (Fig. 2, remote voice application 40 receives a prompt from a user based on a grammar, paragraph 0025; the grammar comprising a composite grammar of acceptable responses, paragraph 0012), the composite grammar comprising constituents from a plurality of applications (one or more applications, paragraph 0025); and

accessing an entry point of one of the plurality of applications based upon the constituent of the composite grammar, wherein the entry point is accessed directly by navigating a menu hierarchy (see Fig. 3, by stating, e.g. "greetings, record", the menu hierarchy of Fig. 3 is navigated to record a greeting at level 160, paragraph 0029).

In regard to claim 17, Neuberger et al. disclose sending a data file to a user, wherein the data file is generated in response to accessing the entry point (see Fig. 2, a response from the remote voice application 40 is transmitted to IVR 12 for TTS 30 to generate a response for the user, paragraphs 0024, 0025, and 0029).

In regard to claim 18, Neuberger et al. disclose accessing the entry point comprises transmitting an indicator to the respective application that the audio code was identified in the processed signal (user interface 42 interprets input for IVR applications 40, paragraph 0025, by identifying the states used in the application, paragraph 0030 and 0031).

In regard to claim 19, Neuberger et al. disclose a tangible computer-readable medium (disk storage storing IVR software, paragraphs 0021 and 0022), comprising:

- programming instructions stored on the computer-readable medium for processing a signal to identify an audio code as a constituent of a composite grammar (Fig. 2, remote voice application 40 receives a prompt from a user based on a grammar, paragraph 0025; the grammar comprising a composite grammar of acceptable responses, paragraph 0012), the composite grammar comprising constituents from a plurality of applications (one or more applications, paragraph 0025); and
- programming instructions stored on the computer-readable medium for accessing an entry point of one of the plurality of applications based upon the constituent of the composite grammar, wherein the entry point is accessed directly by navigating a menu hierarchy (see Fig. 3, by stating, e.g. "greetings, record", the menu hierarchy of Fig. 3 is navigated to record a greeting at level 160, paragraph 0029).

In regard to claim 20, Neuberger et al. disclose programming instructions stored on the computer-readable medium for receiving a data file from the entry point in

response to accessing the entry point (see Fig. 2, a response from the remote voice application 40 is transmitted to IVR 12 for TTS 30 to generate a response for the user, paragraphs 0024, 0025, and 0029).

In regard to claim 21, Neuberger et al. disclose programming instructions stored on the computer-readable medium for sending the data file to a telephony server (see Fig. 2, a response from the remote voice application 40 is transmitted to IVR 12 for TTS 30 to generate a response for the user, paragraphs 0024, 0025, and 0029).

In regard to claim 22, Neuberger et al. disclose the programming instructions for accessing the entry point transmit a token to the respective application that the audio code was identified (user interface 42 interprets input for IVR applications 40, paragraph 0025, by identifying the states used in the application, paragraph 0030 and 0031).

In regard to claim 23, Neuberger et al. disclose composite grammar comprises a VoiceXML grammar (VoiceXML form level grammars, paragraph 0040).

In regard to claim 24, Neuberger et al. disclose a method for manufacturing a tangible computer medium (the instant claim is a "product-by-process" type claim; Neuberger disclose the product, i.e. a computer readable medium comprising the claimed instructions, thus the process of the instant claim is unpatentable over Neuberger et al.), comprising:

storing programming instructions for identifying an audio code as a constituent of a composite grammar on a computer-readable medium (Fig. 2, remote voice application 40 receives a prompt from a user based on a grammar, paragraph 0025; the grammar comprising a composite grammar of acceptable responses, paragraph 0012), wherein the composite grammar comprising constituents from a plurality of applications (one or more applications, paragraph 0025); and

storing programming instructions for accessing an entry point of one of the plurality of applications based upon the constituent of the composite grammar on the computer-readable medium, wherein the entry point is accessed directly by navigating a menu hierarchy (see Fig. 3, by stating, e.g. "greetings, record", the menu hierarchy of Fig. 3 is navigated to record a greeting at level 160, paragraph 0029).

In regard to claim 25, Neuberger et al. disclose a method for manufacturing telephony system (the instant claim is a "product-by-process" type claim; Neuberger disclose the product, i.e. a signal processing device programmed to perform the claimed functions, thus the process of the instant claim is unpatentable over Neuberger et al.), the method comprising the act of:

providing at least one signal processing device programmed to identifying an audio code as a constituent of a composite grammar (Fig. 2, remote voice application 40 receives a prompt from a user based on a grammar, paragraph 0025; the grammar comprising a composite grammar of acceptable responses, paragraph 0012) and programmed to access an entry point of one of the plurality of applications based upon

the constituent of the composite grammar, wherein the entry point corresponds to a level of menu hierarchy and is accessed by navigating the menu hierarchy (see Fig. 3, by stating, e.g. "greetings, record", the menu hierarchy of Fig. 3 is navigated to record a greeting at level 160, paragraph 0029).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Neuberger et al., in view of Busayapongchai et al. (U.S. Patent 6,944,594).

In regard to claim 2, Neuberger et al. disclose a plurality of applications (paragraph 0025) and do not describe any type of exit instructions to exit a previous application, however, Neuberger et al. do not specifically disclose the signal processor is configured to exit a previous application without receiving an exit instruction from a subscriber.

Busayapongchai et al. disclose a signal processor is configured to exit a previous application without receiving an exit instruction from a subscriber (the first application is suspended and exited to initiate the second application, column 6, lines 44-47).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Neuberger et al. to exit a previous application without receiving an

exit instruction from a subscriber, because this would allow a user to open multiple applications at the same time, which allows a user to mix and match the functionalities of multiple applications according to a user's needs, as taught by Busayapongchai et al. (column 4, line 59 to column 5, line 4).

9. Claims 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuberger et al., in view of Denenberg et al. (U.S. Patent 7,158,936).

In regard to claim 6, Neuberger et al. disclose a plurality of applications (paragraph 0025), wherein each application comprises at least one entry point which may be accessed by a corresponding token (Fig. 3, each application 112, 114, and 116, has a root level entry point from the main menu, paragraph 0026; additionally the composite grammar allows a user to access multiple entry points in each application, such as state 160, paragraph 0029).

Neuberger et al. do not disclose a plurality of application servers, wherein each application server is configured to execute at least one of the plurality of applications.

Denenberg et al. disclose a communications system for accessing voice applications wherein applications are hosted on separate application servers, wherein each server is configured to execute at least one of the plurality of applications (Fig. 1, application servers 14, column 2, line 61 to column 3, line 13).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Neuberger et al. to host each application on a separate server, because this would allow each application to be separately updated/maintained without

needing to take other applications offline. Additionally, this would allow independent application vendors to provide and maintain their own applications.

In regard to claims 9 and 10, Neuberger et al. do not disclose a mobile switching center or cell tower.

Denenberg et al. disclose a communications system for accessing voice applications wherein the user can access the voice pages through a mobile telephone 20 using cell tower 24 configured to generate an initial modulated signal in response to electromagnetic waves received via at least one antenna (column 2, line 61 to column 3, line 13). Furthermore, the mobile telephone system disclosed by Denenberg et al. connects to the PSTN, thus would inherently require the necessary mobile switching center configured to transmit the modulated signal to the telephony server required to interface with the PSTN.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Neuberger et al. to include a mobile switching center and cell tower, because this would allow a user to access the voice applications on a mobile phone from any location.

10. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuberger et al., in view of Dressler et al. (*COTS SAR Processing Software*).

Neuberger et al. disclose providing a signal processing device, but do not specify how the signal processing device is provided.

Dressler et al. disclose basic engineering design principle that when developing a signal processor, one should acquire the signal processor if there is an existing processor that meets the design parameters, or build the processor if customization is needed.

It would have been obvious to one of ordinary skill in the art at the time of invention to obtain the at least one signal processing device if the signal processing device were available, because this would reduce development costs. It would have been obvious to one of ordinary skill in the art at the time of invention to build the signal processing device, because this would allow the signal processing device to be customized and optimized for the application.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN L. ALBERTALLI whose telephone number is (571)272-7616. The examiner can normally be reached on Monday-Thursday, 8 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

BLA 12/17/08